

REMARKS/ARGUMENTS

The Office Action dated August 14, 2006, has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 3-11, 13-21 and 23 are pending in this application.

Claims 3-11, 13-21 and 23 stand rejected under 35 USC 103(a) over Johnson (2002/0095400) in view of Enns (6,658,010).

The present claims are directed to a computer implemented method for regulating data consumption in a wireless network:

- 1) storing an account for each of a plurality of subscribers of the wireless network, *each* account having an upstream and a downstream balance that tracks a wireless network data consumption of the respective subscriber of the wireless network;
- 2) *imposing a bandwidth limitation* on a subscriber of the wireless network *responsive to either the upstream or downstream balance of the account* of that subscriber of the wireless network dropping below a defined level; and
- 3) for each account, crediting the balance of the respective account on an intermittent basis.

There are many products which control bandwidth dynamically. However, these share the common feature of responding in real time to real time network conditions. Studies have shown that this is insufficient. There are users who will remain within constraints of such mechanisms, but who use the network constantly (24x7). By looking at the volume of these users over time, the claimed method allows identification of these 'network abusive' users and restricts them.

That is, the claimed method has the ability to keep historical traffic volume information and to act on that information by providing dynamic bandwidth controls based upon the historical volumes. The system allows multiple thresholds for total volume and burst volume and acts differently depending on the threshold(s) reached. That is, users are restricted based upon historical volume of usage rather than on instantaneous usage.

As previously argued, Johnson does not disclose any differentiated services based on upstream and downstream communications in a wireless network (such as a satellite and/or other similar such wireless connection), or any differentiated services including upstream and downstream communications based on a stored balance based of an individual subscriber. The upstream and down stream management are particularly important on a wireless network where the systems often have asymmetric information paths.

Page 39, paragraph [0317] is directed to generating bills, but does not describe imposing a bandwidth limitation based on upstream and downstream balances. Likewise, page 40, paragraph [0326] describes multi-tiered billing processes based on user consumption, but does not describe *imposing a bandwidth limitation* based on upstream and downstream balances. Tiered billing rates and rate adjustments are not the same as periodically updating volume traffic information in each direction and keeping a sliding window for burst computations. Johnson further does not describe regularly resetting these counts to ensure periodic (e.g. monthly) volume quotas. Johnson does not teach or suggest the instant claims.

Enns does not remedy the defects of Johnson. Enns is focused on properly managing the real time mix of traffic in asynchronous wireless networks. These networks suffer from contention issues and Enns provides a clever mechanism to properly allocate both operational and administrative traffic when there is potential interference on the asynchronous network. While Enns does refer to bandwidth control, this is done in real time response to these real time contention issues. And, although Enns does keep accounts for tracking usage, this is standard network management information. This information is not used to make decisions about bandwidth allocations.

More particularly, Enns describes *monitoring* account activity and account management functions which permit *an operator* to manage a client account. These functions are just standard network management information done by all systems. See column 21, line 52, to column 22, line 14. These passages do not teach or suggest *imposing* a bandwidth limitation *responsive to* the upstream or downstream balance of an individual account. On the other hand, the claimed method is a “computer implemented method in a wireless network for regulating data consumption in a network” which imposes a bandwidth limitation based on the balance of an

individual account. Nothing in the above-cited passages in Enns describes monitoring bandwidth based on account activity.

The Office Action considers that column 4, lines 35-40, and Column 17, line 65, to Column 18, line 3 of Enns describes imposing a bandwidth based on upstream or downstream activity. Column 4, lines 35-40 recite a laundry list of what the network operation center can do:

This allows a network service provider full control of cable data services that flow through the broadband network. A network operation center located at a centralized plant (i.e., a cable TV head end plant) controls configuration of remote devices; IP address assignments; upstream data rates; remote device power level settings and frequency assignments; user traffic management and load balancing; subscriber account management; routing or switching management; bandwidth management; and developing usage and performance statistics for modifying parameters that control such functions.

This laundry list of general functions (including “bandwidth management”) does not teach or suggest using *individual* bandwidth controls based on accumulated usage values (over days, weeks, or months) which dynamically reduce the load on a complex network. There is no indication that bandwidth controls are implemented based on upstream or downstream activity of individual accounts.

Column 17, line 65, to column 18, line 3 is directed to a network controller which acts as a bandwidth controller, traffic statistics collector, and IP address database. While Enns does dynamically adjust bandwidth in an asynchronous manner, it is based on real time network conditions and congestion, not on historical information from the accounts. Again, nothing in this passage teaches or suggests *imposing* a bandwidth limitation *responsive to* the upstream or downstream balance of an individual account. Instead, this is just a list of general functions.

Thus, contrary to the position asserted in the Office Action, Enns does not teach controlling a network comprising an upstream and a downstream balance that tracks a wireless network data consumption and *imposes* a bandwidth limitation on a subscriber of the wireless network *responsive to* either the upstream or downstream balance of the account.

Thus, even if the teachings of Johnson and Enns could be combined, the claims of the present application would not have been obvious to one of ordinary skill in the art at the time of

the invention in view of Johnson and Enns. Reconsideration is respectfully requested and a favorable action on the merits is solicited.

CONCLUSION

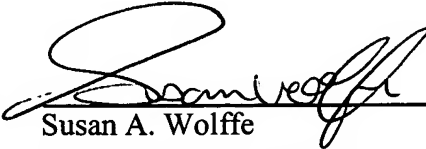
In view of the above remarks, this application is in condition for allowance.

The Commissioner is authorized to charge our Deposit Account No. 19-0733 for any fees associated with this paper or application. A duplicate copy of this sheet is enclosed for accounting purposes.

Respectfully submitted,

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Dated: 9/7/06

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